

CONTROL NO.

TOP SECRET RUFF

DATE

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30 April 1925X1

SUBJECT AREA: Air Forces/Electronics

IEG PI NOTICE

DISTRIBUTION: All PI's

No. 21-79

## TITLE/SIGNIFICANCE:

Soviet fixed instrument landing systems (ILS): the SP-50M, SP-50M Modified, and SP-70.

COMMENT: This notice provides descriptions and photographs of three fixed Soviet instrument landing systems (ILS)- the SP-50M, an ILS temporarily designated by NPIC as the SP-50M Modified, and the SP-70.

The SP-50M localizer antenna consists of a horseshoe-shaped array with its open end towards the runway. A circular-shaped probable environmental housing for the probable antenna feed is normally observed within the tips of the horseshoe. The SP-50M glide slope antenna possesses two radiators.

The SP-50M Modified localizer antenna is also horseshoe-shaped, but possesses less of an arc than that of the SP-50M. The SP-50M Modified localizer antenna possesses no circular-shaped environmental housing, but rather is observed with a "rack" containing five cylindrical objects positioned immediately in front of the open end of the array, and a second "rack" of three cylindrical objects even with the tips of the array. The SP-50M Modified glide slope antenna possesses three radiators.

The SP-70 localizer antenna consists of a long bar-shaped array. A parallel, shorter bar-shaped array is positioned on the side of the long array opposite the end of the runway. The SP-70 glide slope antenna possesses three radiators.

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## LOCATION(S)

Numerous Soviet civil and some Soviet military-associated airfields

SOURCES: "Radio Aids for Aircraft Landing, Short-Range Navigation, and Secondary Radar Systems", Astronautics and Aeronautics, Feb 1975. + KEYHOLE photography

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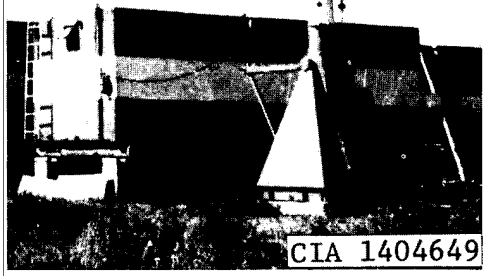
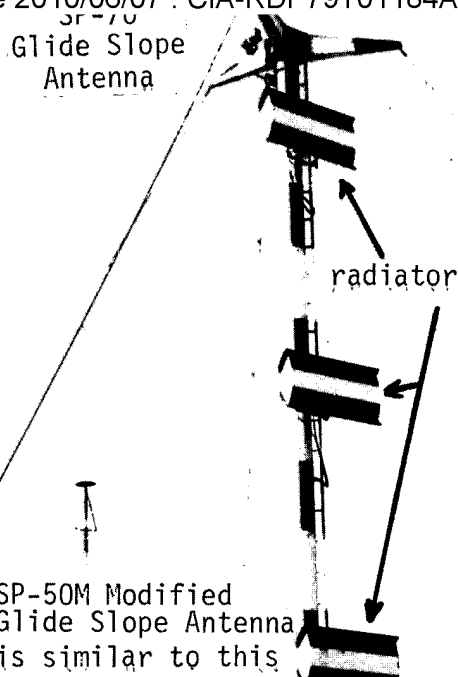
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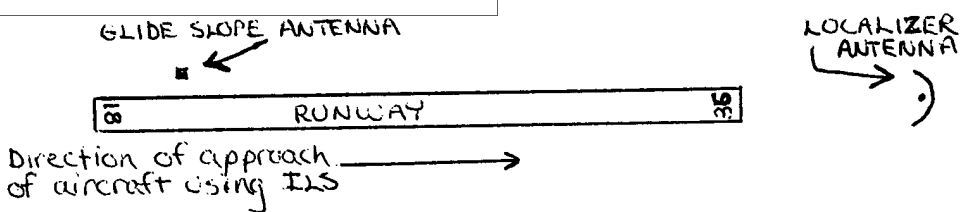
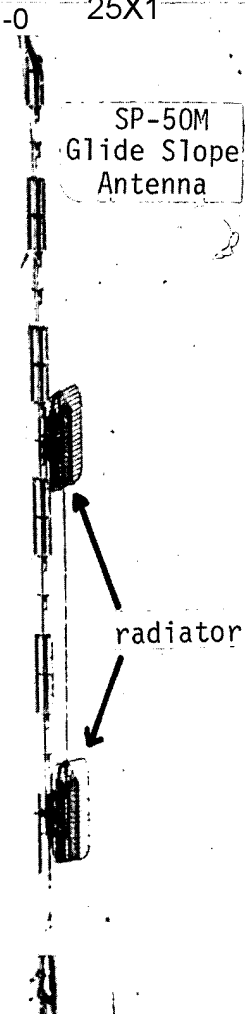
WARNING NOTICE  
Intelligence Sources  
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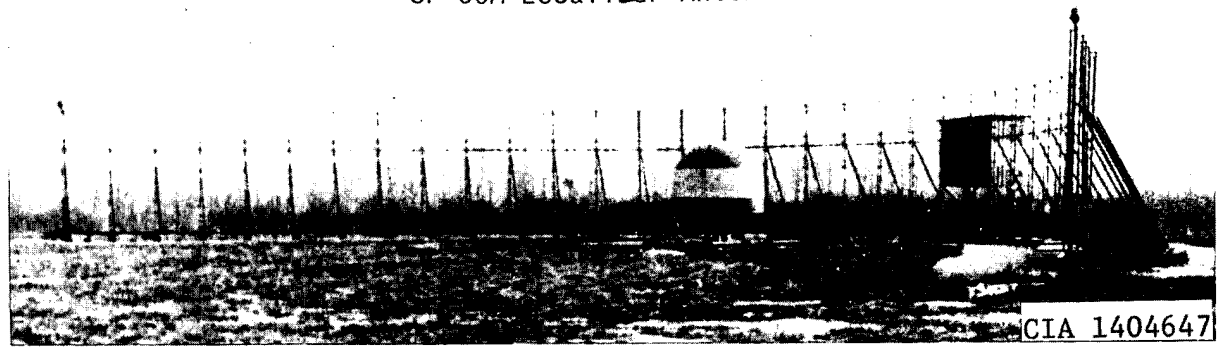
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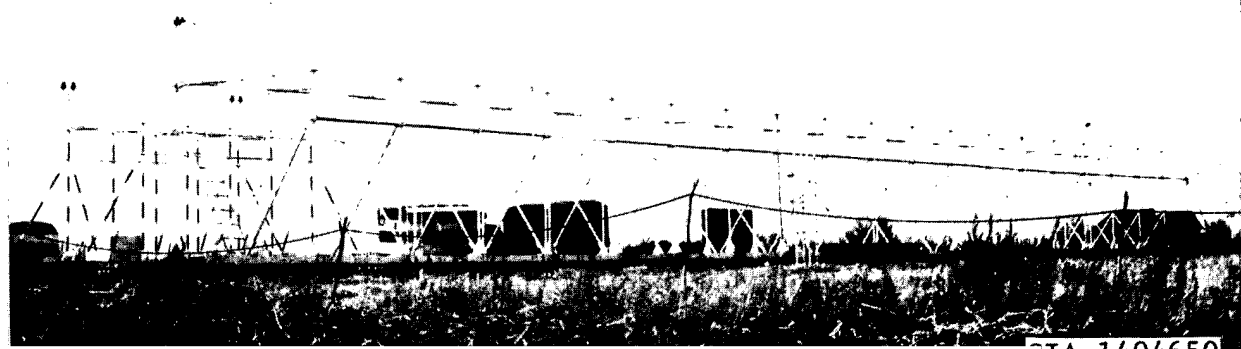
SP-50M  
Glide Slope  
Antenna



SP-50M Localizer Antenna



SP-70 Localizer Antenna

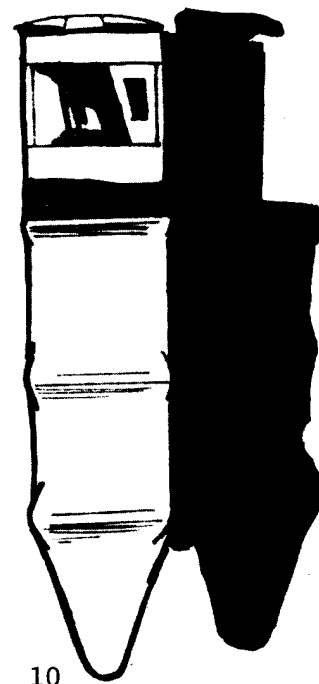
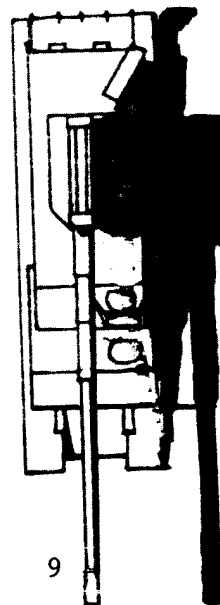
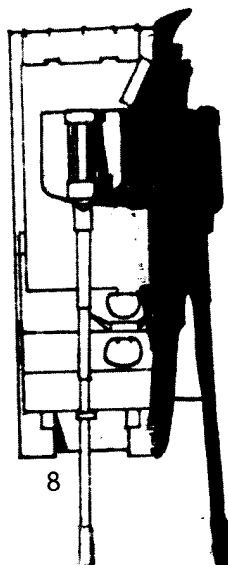
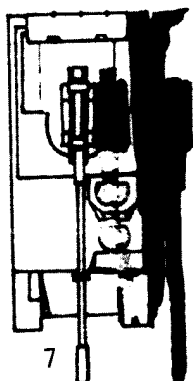
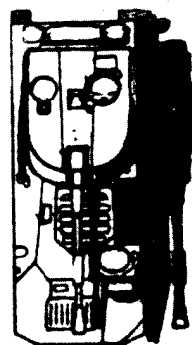


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Watch for Likely Deployment to Units

Sverdlovsk Poss AT Gun TL6 (001)	Div or Regt AT Bns (MRD) AT Regts in Non-Div Arty Units
Perm Poss Gun/How TL8 (002)	Arty Regts in Non-Div Arty Units (replace 130mm and/or 152mm)
TL9 (003)	
Novosibirsk Poss Gun/How TL9 (004)	
TL10 (005)	Hvy Arty Bdes (replace 203mm How)
Sverdlovsk Poss Gun/How TL10 (006)	
Donguz-SP Gun TL7.4 (007)	
Leningrad-SP Gun TL10.5 (008)	
TL11.2 (009)	



122mm SP GUN, M-1974

**LEGEND:**

7. Donguz-SP Gun-TL7.4 (007)  
 8.\* Leningrad-SP Gun/How-TL10.5 (008)  
 9.\* Leningrad-SP Gun/How-TL11.2 (009) } Related Prototypes  
 10. Leningrad-SP Unid Veh (Poss Arty Related) (010)

**Naming Structure:**

Place where first seen - function - Tube Length (M) - (Sequential Number)  
 (Except Leningrad SP)

- \* One of the Perm Guns (002 or 003) and one of the Leningrad Guns (008 or 009) have been deployed to units.